SIEMENS

Input

Data sheet 6EP1931-2EC31



SITOP DC UPS MODULE/24VDC/15A/SERIAL

SITOP DC UPS module 24 V/15 A uninterruptible power supply with serial interface input: 24 V DC/16 A output: 24 V DC/15 A *Ex approval no longer available*

supply voltage at DC rated value voltage curve at input input voltage range adjustable response value voltage for buffer connection preset adjustable response value voltage for buffer connection input current at rated input voltage for buffer connection input current at rated input voltage for buffer connection input current at rated input voltage 24 V rated value **Total value** **Total valu	Input	
input voltage range adjustable response value voltage for buffer connection preset adjustable response value voltage for buffer connection input current at rated input voltage 24 V rated value Mains buffering type of energy storage design of the mains power cut bridging-connection charging current adjustable charging current maximum note Charging current adjustable charging current maximum note Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes! A. 0.7 A factory setting approx. 0.7 A Dutput Output voltage • in normal operation at DC rated value • in buffering mode at DC rated value formula for output voltage grate time of the output voltage typical output voltage in buffering mode at DC output current • rated value • in normal operation • in buffering mode • in normal operation • in buffering mode • in buffering mode • in buffering mode • in buffering mode • in buffering mode • in crated value • in normal operation • in buffering mode • in crated value • in the output short-circuit proof supplied active power typical Efficiency efficiency in percent • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical power loss [W] • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical product function	supply voltage at DC rated value	24 V
adjustable response value voltage for buffer connection preset adjustable response value voltage for buffer connection input current at rated input voltage 24 V rated value Mains buffering type of energy storage design of the mains power cut bridging-connection buffer adjustable charging current adjustable charging current maximum note charging current adjustable charging current maximum note Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes! Output output voltage in normal operation at DC rated value in buffering mode at DC rated value in portages time of the output voltage typical output voltage in buffering mode at DC output current in acted value in normal operation in normal operation in put current typical in normal operation in the definition of the coutput voltage typical output formal operation in the first property of the output short-circuit proof supplied active power typical in case of operation on rechargeable battery typical product function	voltage curve at input	DC
preset adjustable response value voltage for buffer connection input current at rated input voltage 24 V rated value Mains buffering type of energy storage design of the mains power cut bridging-connection charging current adjustable charging current maximum note charging current adjustable charging current maximum note in normal operation at DC rated value in in buffering mode at DC rated value in buffering mode at DC output voltage startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC output current i rated value i normal operation i normal oper	input voltage range	22 29 V DC
input current at rated input voltage 24 V rated value Mains buffering type of energy storage design of the mains power cut bridging-connection design of the mains power cut bridging-connection charging current adjustable charging current maximum note Cutput Output output voltage in normal operation at DC rated value in huffering mode at DC rated value output voltage in curease time of the output voltage typical output voltage in buffering mode at DC output voltage in peration in normal operation in normal operation in normal operation in normal operation in buffering mode in normal operation in	, ,	22.5 V
Mains buffering type of energy storage design of the mains power cut bridging-connection Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes! O.35 A, 0.7 A factory setting approx. 0.7 A	adjustable response value voltage for buffer connection	22 25.5 V; Adjustable in 0.5 V increments
type of energy storage design of the mains power cut bridging-connection charging current adjustable charging current maximum note Output output voltage in normal operation at DC rated value oi hubfering mode at DC rated value formula for output voltage voltage increase time of the output voltage typical output current in normal operation in buffering mode at DC output current in posterior in buffering mode at DC output current in posterior in buffering mode at DC output current in a rated output voltage for rated value in buffering mode in buffering mode in normal operation in buffering mode in case of operation on rechargeable battery typical power loss [W] a trated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical product function	input current at rated input voltage 24 V rated value	15 A; + approx. 1 A with empty battery
design of the mains power cut bridging-connection Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes! 0.35 A, 0.7 A factory setting approx. 0.7 A Output Output Output Output Output Output output voltage • in normal operation at DC rated value • in buffering mode at DC rated value formula for output voltage Vin - approx. 0.5 V startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC output current • rated value • in normal operation • in buffering mode peak current property of the output short-circuit proof supplied active power typical • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical oin case of operation on rechargeable battery typical	Mains buffering	
battery module and mains buffering times as well as the relevant important information notes! charging current adjustable charging current maximum note output output voltage in normal operation at DC rated value in buffering mode at DC rated value in buffering mode at DC rated value voltage increase time of the output voltage typical output voltage in buffering mode at DC output current in a rated value in normal operation in buffering mode output current in a rated value in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical improduct function battery module and mains buffering timofraction factors factory setting approx. 0.7 A 24 V 24 V 24 V 24 V 25 V 26 On so 36 On	type of energy storage	with batteries
adjustable charging current maximum note Output output voltage • in normal operation at DC rated value • in buffering mode at DC rated value formula for output voltage startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC output current • rated value • in normal operation • in buffering mode • in normal operation • in buffering mode • in normal operation • in buffering mode • in utput short-circuit proof supplied active power typical Efficiency efficiency efficiency in percent • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function	design of the mains power cut bridging-connection	battery module and mains buffering times as well as the relevant
output voltage in normal operation at DC rated value in buffering mode at DC rated value 24 V in buffering mode at DC rated value 24 V formula for output voltage startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC output voltage in buffering mode at DC output current rated value in normal operation in outfering mode in buffering mode output short-circuit proof supplied active power typical Efficiency efficiency efficiency in percent at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical output voltage in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical output voltage for rated value of the output current typical	charging current	0.35 A, 0.7 A
output voltage in normal operation at DC rated value in buffering mode at DC rated value 24 V formula for output voltage startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC 1 s voltage increase time of the output voltage typical output voltage in buffering mode at DC 19 28.5 V output current in normal operation in normal operation in buffering mode in a trated output short-circuit proof yes supplied active power typical in case of operation on rechargeable battery typical power loss [W] at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical	adjustable charging current maximum note	factory setting approx. 0.7 A
in normal operation at DC rated value in buffering mode at DC rated value vin - approx. 0.5 V startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC output current rated value in normal operation in normal operation in buffering mode output short-circuit proof supplied active power typical efficiency efficiency efficiency efficiency efficiency ein case of operation on rechargeable battery typical oin case of operation on rechargeable battery typical	Output	
in buffering mode at DC rated value formula for output voltage startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC output current rated value in normal operation in buffering mode in current in the second of the output short-circuit proof supplied active power typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical Protection and monitoring product function	output voltage	
formula for output voltage startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC output current • rated value • in normal operation • in buffering mode • in buffering mode peak current property of the output short-circuit proof supplied active power typical • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function	 in normal operation at DC rated value 	24 V
startup delay time typical voltage increase time of the output voltage typical output voltage in buffering mode at DC output current • rated value • in normal operation • in buffering mode peak current property of the output short-circuit proof supplied active power typical	 in buffering mode at DC rated value 	24 V
voltage increase time of the output voltage typical output voltage in buffering mode at DC output current • rated value • in normal operation • in buffering mode peak current property of the output short-circuit proof supplied active power typical Efficiency efficiency in percent • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function	formula for output voltage	Vin - approx. 0.5 V
output voltage in buffering mode at DC output current • rated value • in normal operation • in buffering mode • in buffering	startup delay time typical	1 s
output current • rated value • in normal operation • in buffering mode peak current property of the output short-circuit proof supplied active power typical • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function	voltage increase time of the output voltage typical	60 ms
 rated value in normal operation in buffering mode in buffering mode in buffering mode in 15.7 A peak current property of the output short-circuit proof supplied active power typical 40 W Efficiency efficiency in percent at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical product function 	output voltage in buffering mode at DC	19 28.5 V
in normal operation in buffering mode in buffering mode in buffering mode in buffering mode output short-circuit proof supplied active power typical Efficiency efficiency efficiency in percent at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical power loss [W] at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical oin case of operation on rechargeable battery typical in case of operation on rechargeable battery typical oin case of operation on rechargeable battery typical product function	output current	
in buffering mode peak current property of the output short-circuit proof supplied active power typical Efficiency efficiency in percent at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical power loss [W] at rated output voltage for rated value of the output current typical of in case of operation on rechargeable battery typical of in case of operation on rechargeable battery typical for current typical of in case of operation on rechargeable battery typical of in case of operation on rechargeable battery typical for current typical of in case of operation on rechargeable battery typical Protection and monitoring product function	rated value	15 A
peak current property of the output short-circuit proof supplied active power typical Efficiency efficiency efficiency efficiency in percent • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical power loss [W] • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function	in normal operation	0 15 A
property of the output short-circuit proof supplied active power typical Efficiency efficiency efficiency in percent • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical power loss [W] • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function	in buffering mode	0 15 A
supplied active power typical Efficiency efficiency in percent • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical power loss [W] • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function	Production and the second seco	15.7 A
efficiency efficiency in percent • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical power loss [W] • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function		
efficiency in percent • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical power loss [W] • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical • in case of operation on rechargeable battery typical Protection and monitoring product function		360 W
 at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical power loss [W] at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical in case of operation on rechargeable battery typical Protection and monitoring product function	Efficiency	
current typical in case of operation on rechargeable battery typical power loss [W] at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical Protection and monitoring product function	, ·	
power loss [W] • at rated output voltage for rated value of the output current typical • in case of operation on rechargeable battery typical Protection and monitoring product function	, ,	96.2 %
 at rated output voltage for rated value of the output current typical in case of operation on rechargeable battery typical Protection and monitoring product function 	 in case of operation on rechargeable battery typical 	96 %
current typical • in case of operation on rechargeable battery typical Protection and monitoring product function	power loss [W]	
Protection and monitoring product function		14 W
product function	 in case of operation on rechargeable battery typical 	15 W
	Protection and monitoring	
reverse polarity protection against energy storage Yes	product function	
	 reverse polarity protection against energy storage 	Yes

unit polarity reversal • reverse polarity protection against input voltage Yes polarity reversal Signaling display version • for normal operation Normal operation: LED green (OK), floating changeover contact "Bat/OK" to setting "OK" ("OK" means: Voltage of the supplying power supply unit is greater than cut-in threshold set at the DC UPS module); Lack of buffer standby: LED red (alarm), floating changeover contact "Alarm/Bat" to setting "Alarm"; Battery replacement required: LED red (alarm) flashing with approx. 0.25 Hz, floating changeover contact "Alarm/Bat" switching with approx. 0.25 Hz; Energy storage > 85%: LED green (Bat > 85%), floating NO contact "Bat > 85" closed; Permissible contact current capacity: DC 60 V/1 A or AC 30 V /1 A • in buffering mode Buffered mode: LED yellow (Bat), floating changeover contact "OK/Bat" to setting "Bat"; Prewarning battery voltage < 20.4 VDC: LED red (alarm), floating changeover contact "Alarm/Bat" to setting "Alarm"; Energy storage > 85%: LED green (Bat > 85%), floating NO contact "Bat > 85" closed Interface product component PC interface Yes design of the interface serial galvanic isolation between input and output No operating resource protection class Class III protection class IP IP20 Approvals certificate of suitability CE marking Yes UL approval Yes • as approval for USA cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 certificate of suitability • EAC approval Yes C-Tick No · shipbuilding approval Yes ABS, DNV GL shipbuilding approval Marine classification association • American Bureau of Shipping Europe Ltd. (ABS) Yes • DNV GL Yes EMC standard EN 55022 Class B for emitted interference • for interference immunity EN 61000-6-2 environmental conditions ambient temperature -25 ... +60 °C; with natural convection · during operation -40 ... +85 °C · during transport · during storage -40 ... +85 °C environmental category according to IEC 60721 Climate class 3K3, 5 ... 95% no condensation type of electrical connection screw-type terminals 24 V DC: 2 screw terminals for 1 ... 4 mm²/17 ... 11 AWG • at input at output 24 V DC: 4 screw terminals for 1 ... 4 mm²/17 ... 11 AWG • for rechargeable battery module 24 V DC: 2 screw terminals for 1 ... 4 mm²/17 ... 11 AWG for control circuit and status message 10 screw terminals for 0.5 ... 2.5 mm²/20 ... 13 AWG width of the enclosure 50 mm 125 mm height of the enclosure 125 mm depth of the enclosure required spacing 50 mm top bottom 50 mm 0 mm left right 0 mm net weight 0.45 kg

product feature of the enclosure housing can be lined up fastening method electrical accessories MTBF at 40 °C reference code according to IEC 81346-2 other information

Yes

Snaps onto DIN rail EN 60715 35x7.5/15

Battery module

725 689 h

RB

Specifications at rated input voltage and ambient temperature +25 $^{\circ}\text{C}$ (unless otherwise specified)

